

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/1/2004.
2. ☒ The allowed claim(s) is/are 41-46, 48-54, 62 and 71-75.
3. ☒ The drawings filed on 09 April 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 20040129, 20040427.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Veronica Malon on 4/27/2004.

The application has been amended as follows:

The amendment after final filed March 1, 2004 has been entered.

Claims 13-18, 28, 33-40, 63-70, nonelected without traverse, have been cancelled.

Claims 71 and 72, drawn to methods of use of allowable products, have been rejoined and examined. Claim 71 has been amended as shown on the attached page.

In the specification, the priority information and the brief description of the drawings have been amended as shown in the attached page.


Claims 41-46, 48-54, 62, 71-75 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary E. Mosher, Ph.D. whose telephone number is 571-272-0906. The examiner can normally be reached on M-T and alternate F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on 571-272-0902. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

4/27/04

  
**MARY E. MOSHER**  
**PRIMARY EXAMINER**  
**GROUP 1800-1600**

**Claim 71 has been amended as follows:**

71. (amended) A method for detecting the presence of a bacterium comprising a nucleic acid encoding a streptococcal binding protein comprising:

- (a) contacting a sample in which the presence ~~or activity~~ of the bacterium is suspected with the oligonucleotide of claim 46; and
- (b) detecting whether hybridization has occurred between the oligonucleotide and the nucleic acid; wherein detection of hybridization indicates that the presence ~~or activity~~ of the bacterium in the sample.

Amendments to the specification:

**Page 1 of the specification was amended on May 1, 2001, replacing the paragraphs between the title and the "Field of the invention" with two substitute paragraphs. The first of these two paragraphs has now been replaced with the following paragraph:**

The present application is a divisional of copending Serial No. 08/847,065, filed May 1, 1997, now U.S. Patent 6,245,335, which is a non-provisional application claiming priority to Provisional Patent Application Serial No. 60/016,632 filed May 1, 1996, the disclosures of which are hereby incorporated by reference in their entireties. Applicants claim the benefits of these applications under 35 U.S.C. §§ 119 (e) and 120.

**On specification page 17, lines 9-10 have been replaced with:**

FIGURE 10. Comparison of amino terminal sequence of 50 kDa protein (SEQ ID NO: 12) with *B. subtilis* enolase (SEQ ID NO: 13).

**On specification page 17, lines 21-30 have been replaced with:**

FIGURE 14. DNA Sequence comparison of DNA for the 50 kDa protein (SEQ ID NO: 14) and *B. subtilis* enolase (SEQ ID NO: 15). The sequences were 74% identical.

FIGURE 15. Deduced amino acid sequence comparison for the 50 kDa protein (SEQ ID NO: 16) and *B. subtilis* enolase (SEQ ID NO: 17). These sequences were 72% identical, with 85% positives.